

REMARKS

This amendment is submitted in response to the non-final Office Action mailed November 1, 2005. In the Office Action, the Examiner:

- rejected pending claims 1, 2, 4, 5, 13-16, and 23-24 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,741,256 to Bresina (hereinafter “Bresina”); and
- rejected pending claims 3, 6-12 and 25-35 under 35 U.S.C. § 103(a) as obvious in view of Bresina in combination with U.S. Patent No. 5,120,171 to Lasner (hereinafter “Lasner”).

Following entry of this amendment, claims 1-35 remain pending in the application. Applicants have amended claims 1, 3, 9, 16, 21, 25, and 26 to further define the invention recited, more clearly distinguish over the cited prior art, and/or conform with amendments to other claims. All amendments are fully supported by the originally-filed specification and/or drawings of the present application. No new matter has been added. The claim amendments made herein do not represent acquiescence in the Examiner’s rejections, but rather are made only to expedite prosecution of the present application and/or maintain consistency in claim language. Applicants expressly reserve the right to pursue the subject matter of any previously presented claims in one or more continuation applications. As discussed more fully below, Applicants respectfully submit that each of the currently pending claims define features that are not disclosed, taught or suggested by the prior art of record and respectfully requests allowance of same.

Claim Rejections 35 U.S.C. § 102(b) & § 103(a)

Claims 1, 2, 4, 5, 13-16, and 23-24 were rejected under 35 U.S.C. § 102(b) as anticipated by Bresina. Claims 3, 6-12 and 25-35 were rejected as obvious under 35 U.S.C. § 103(a) in view of Bresina in combination with Lasner. Applicants respectfully traverse each of these claim rejections and, for the reasons discussed below, submit that neither Bresina nor Lasner, either taken alone or in combination, disclose, teach or suggest each of the limitations recited in amended independent claims 1, 16 and 25.

Independent Claim 1

The Office Action cites Bresina as disclosing each of the elements of original independent claim 1, but states that “Bresina does not teach a variable blade height that increases in the direction along the longitudinal axis.” (Nov. 1, 2005 Office Action in Appln. Ser. No. 10/774,167 at 3 (hereinafter “Office Action”).) As a preliminary matter, applicants note that there appears to be a misunderstanding in the Office Action of the terms blade “width” and blade “height” as disclosed and claimed in the present application. As discussed in the specification, and shown in FIGS. 4A-4F of the present application, the blade “height H” is “defined perpendicularly to the longitudinal axis 30 from the base of the blade 32 to the tip of the blade.” (Specification at Para. [0042].) As shown in FIGS. 4B-4F, the blade “width W” is defined as the blade dimension substantially perpendicular to the blade height for any given blade when viewed in cross-section. The Office Action appears to have transposed these two dimensions in applying the prior art.

In response to the rejection, applicants have amended claim 1 to recite an implant comprising, *inter alia*, “a plurality of blades disposed on at least a portion of the shaft and helically twisted about the longitudinal axis,” wherein “at least one of the blades has a variable blade width that varies in a direction along the longitudinal axis, and at least one of the blades has a variable blade height that varies in a direction along the longitudinal axis, such that a cross-section taken in a plane substantially perpendicular to the longitudinal axis of the implant between the proximal and distal ends of the plurality of blades defines both the variable blade width and variable blade height at a point along the implant.” Applicants respectfully submit that neither Bresina nor Lasner, either taken alone or in combination, disclose, teach or suggest the implant recited in amended claim 1. Bresina at least fails to teach any “variable blade width” or that “a cross-section taken in a plane substantially perpendicular to the longitudinal axis of the implant between the proximal and distal ends of the plurality of blades defines both the variable blade width and variable blade height at a point along the implant,” as recited in amended claim 1.¹ Lasner also fails to teach a “variable blade width” or that a “a cross-section taken in a plane substantially perpendicular to the longitudinal axis of the implant between the proximal and distal ends of the plurality of blades defines both the variable blade width and variable blade height at a point along the

¹ Applicants note that the term “width” used in Bresina does *not* correspond to the blade “width” disclosed and claimed in the present application.

implant.”

Accordingly, since both Bresina and Lasner, either taken alone or in combination, fail to disclose, teach or suggest all of the elements recited in amended claim 1, applicants respectfully request that the rejection of claim 1 be withdrawn and that this claim, and each of its dependent claims 2-15, be allowed.

Independent Claim 16

Independent claim 16 was rejected as anticipated by Bresina, and the Office Action states that “Bresina further discloses that the maximum diameter of the bladed portion is smaller than the maximum diameter of the non-bladed portion.” (Office Action at 2.) The Office Action also reproduces FIG. 1 of Bresina and references the reduced-diameter proximal portion 14 of shaft 16 as “the maximum diameter of the bladed portion.” Applicants respectfully traverse this rejection and have amended claim 16 to recite an implant comprising, *inter alia*, “a plurality of blades disposed on the bladed portion and helically twisted about the longitudinal axis, wherein the maximum outer diameter of the bladed portion is smaller than the maximum outer diameter of the non-bladed portion.” Applicants note that the specification and drawings of the present application make clear that the claimed “maximum outer diameter of the bladed portion,” denoted by reference character 44 in FIG. 3, refers to the outer diameter taken at the blades:

The maximum diameter of bladed portion 40 (i.e., where bladed diameter 44 is at its greatest) may preferably be smaller than the maximum diameter of non-bladed portion 42 (i.e., where non-bladed diameter 46 is at its greatest).

(Specification at Para. [0044]; FIG. 3)

Bresina does not disclose, teach or suggest an implant where “the maximum outer diameter of the bladed portion is smaller than the maximum outer diameter of the non-bladed portion,” as recited in amended independent claim 16. Accordingly, applicants respectfully request that the anticipation rejection of claim 16 be withdrawn and that this claim, and each of its dependent claims 17-24, be allowed.

Independent Claim 25

Independent claim 25 was rejected under 35 U.S.C. § 103(a) as obvious in view of Bresina in combination with Lasner. In response, applicants have amended claim 25 to include the allowable subject matter of dependent claim 17. (Office Action at 4.) As

amended, claim 25 recites an implant comprising, *inter alia*, a plurality of blades “wherein the non-bladed portion includes a tapered region located substantially adjacent the bladed portion, wherein the tapered region defines a tapered region diameter that decreases in a direction toward the bladed portion.” Given this amendment, applicant respectfully requests that the obviousness rejection of claim 25 be withdrawn and that claim 25, and each of its dependent claims 26-35 be allowed.

Dependent Claims 3, 9, 21 and 26

Applicants have amended dependent claim 3, 9, 21, and 26 to further define the present invention and/or conform with amendments to other related claims. Each of these amendments is fully supported by the originally-filed specification and drawings.

Allowable Subject Matter

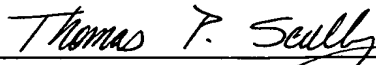
Applicant would like to thank the Examiner for the indication of allowable subject matter in dependent claims 17-22. As indicated above, applicants have amended claim 25 to include the allowable subject matter of dependent claim 17.

In view of the above amendments and remarks, Applicants respectfully request that the Examiner reconsider pending claims 1-35 with a view towards allowance. The Examiner is invited to call the undersigned attorney at (212) 326-3939 if a telephone call could help resolve any remaining issues.

A separate petition for a one-month extension of time is submitted herewith. Should any additional fees be required, please charge such fees to Jones Day deposit account no. 50-3013.

Respectfully submitted,

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